

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-3 and 6-14 are pending in the present application. Claims 1, 6, 9 and 12 are independent claims.

Claim Rejections – 35 U.S.C. § 112

Claims 1, 6, 9, and 12 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. The Office Action states that the claims contain subject matter not described in the specification. This rejection is respectfully traversed.

Claims 1, 6, 9, and 12 all recite the limitation that “said correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction.” The Office Action states that there is no “reasonable support, either explicitly or suggestively, for the claimed subject matter.” (Page 3 of Office Action). Applicants respectfully disagree.

Applicants note that general support for correction information that contains the steps taken to make the corrections first appears on page 6 of the specification. In describing the image correction processor section, the specification states that it “generates correction information which describes details of the image corrections made to the objects, at least to the extent that the objects before the corrections can be reproduced.” Applicants further point to page 7 of the specification, which discusses a second image correction device that “can return the corrected image data to the original image data based on the correction information.”

Applicants also note that specific support for the notion that the correction information includes the steps taken to make the corrections, so that the corrections can be undone or repeated, is found first on page 24 of the specification, which states that “the correction information allows the original [features] to be restored from the corrected [features] and thereby allows the corrected image data to be returned to the original image data.” The correction

information therefore must describe the changes and processing undergone by the original image data. If the steps taken to effect the corrections present in the corrected image data were not present in the correction information, it would not be possible to restore the original image data from the corrected image data.

Applicants further point to page 26 of the specification, which states that part of the invention “generates correction information which describes details of the image corrections made to the [image features].” Applicants respectfully submit that this is a clear statement identical in content and meaning to the claim limitation that “correction information includes steps taken to make said correction.”

Lastly, Applicants point to page 29, which states “the correction information generated in Step S2_2 is converted into its inverse, i.e. correction information ... which describes processes needed to restore the original [features] from the corrected [features].” Applicants respectfully submit that the inverse correction information is not merely a store of the differences between the original and corrected image data, but describes the steps taken to make the corrections. Applicants further submit that since the inverse correction information describes the processes needed to restore the original image data from the corrected image data, then the un-converted correction information must describe the processes needed to change the original image data into the corrected image data. Applicants therefore respectfully submit that this provides further specific support for the claim limitations that the “correction information includes steps taken to make said correction.”

At least in view of the above, Applicants respectfully submit that the claim limitation that “said correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction,” as recited in claims 1, 6, 9, and 12, is fully supported by the specification. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,987,535 to Matsugu et al. (hereafter “Matsugu”). This rejection is respectfully traversed.

Matsugu discloses an image correction device (column 2, line 1) that corrects defects in local objects (column 10, line 62). Matsugu discloses additional digital camera features, including image acquisition (column 3, line 19), object detection (column 11, line 1), generating detection information (column 5, line 31), storing image and detection data (column 5, line 28 and line 60), using electronic watermarks to store information about the image within the image (column 14, line 63), and image correction (column 5, line 24 and line 44).

Matsugu specifically discloses creating incidental image data that includes size, shape, and position of a detected object so that a detected object may be read separately from a synthesized image and overlapped on that image as auxiliary data. Matsugu discloses that this feature eliminates the need to re-extract that object from the image to further process the object (column 5, lines 31 to 51). Matsugu further discloses that incidental image data may be encoded into the image itself as a digital watermark (column 14, lines 63-64).

Claim 1

Independent claim 1 pertains to an image correction device that corrects defects in local objects in an image. The device comprises an image acquisition section, an image correction processor section that corrects an object in image data and generates correction information detailing the correction made to said object, and a storage section that stores image data and correction information. Claim 1 requires that the “correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction.”

With respect to independent claim 1, the incidental image data disclosed by Matsugu does not include information about the steps taken to make image corrections, or about how to undo or repeat the correction steps taken with respect to the image data. Matsugu only discloses restoring the original image data by storing the original image data, or relevant portions thereof, in a separate file or file header so that it may be recovered or referenced for later use. (Col. 17, line 59 to Col 18, line 3). Matsugu does not teach or suggest the possibility of re-creating either the corrected image data or the original image data by performing operations contained in correction information embedded in the image data. Applicants therefore respectfully submit that Matsugu does not disclose embedding “correction information [that] includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction,” into the image data as required by independent claim 1.

Claim 6

Independent claim 6 pertains to a storage medium with a computer program on it that enables a computing device to perform the functions of the image correction device described in claim 1. Claim 6 also recites the requirement that the “correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction.” Applicants therefore respectfully submit that independent claim 6 is patentable over Matsugu for the same reasons as set forth above in connection with independent claim 1.

Dependent Claims

With respect to dependent claims 2, 3, 7, and 8, Applicants respectfully submit that these claims are patentable over Matsugu at least by virtue of their dependence from claims 1 and 6.

Summary

At least in view of the above, Applicants submit that Matsugu is deficient in its teaching. Applicants respectfully submit that Matsugu does not teach or suggest “correction information

[that] includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction,” as required by independent claims 1 and 6, and all claims depending therefrom. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections – 35 U.S.C. § 103

Claims 9-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsugu in view of U.S. Patent Publication 2002/0180997 by Rozzi (hereafter “Rozzi”). This rejection is respectfully traversed.

Rozzi teaches a method for storing and communicating color profiles across multiple devices for a raster image. The Office Action relies upon Rozzi to teach embedding image information within a border of an image (Para 0012).

Claim 9

Independent claim 9 is similar to independent claim 1 described above, except that the device of claim 9 stores the correction information in a border area of an image file instead of as a digital watermark. The device of claim 9 also requires that the “correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction.”

Applicants respectfully submit that Matsugu is deficient in its teaching with respect to claim 9 for the same reasons as set forth above with respect to independent claim 1. Applicants further submit that Rozzi is not relied upon, nor can it be relied upon, to remedy the deficiencies of Matsugu with respect to independent claim 9.

Claim 12

Independent claim 12 pertains to a storage medium with a computer program on it that enables a computing device to perform the functions of the image correction device described in claim 9. Claim 12 also recites the requirement that the “correction information includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction.” Applicants therefore respectfully submit that independent claim 12 is patentable over Matsugu and Rozzi for the same reasons as set forth above in connection with independent claim 9.

Dependent Claims

With respect to dependent claims 10, 11, 13, and 14, Applicants respectfully submit that these claims are patentable over Matsugu and Rozzi at least by virtue of their dependence from independent claims 9 and 12.

Summary

At least in view of the above, Applicants submit that Matsugu and Rozzi, taken either alone or in combination (assuming the references may be combined, which Applicants do not admit) are deficient in their teachings. Applicants respectfully submit that neither Rozzi nor Matsugu teach or suggest “correction information [that] includes steps taken to make said correction so that the stored image data contains information to undo or repeat said correction,” as required by independent claims 9 and 12, and all claims depending therefrom. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Conclusion

In view of the above remarks, it is believed that claims are allowable.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact D. Richard Anderson, Reg. No. 40,439 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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